

(ii) determining binding between said XRCC4 and said one or more components selected from the group consisting of DNA ligase IV and DNA-PK<sub>CS</sub>/Ku;

reduction or abolition in binding between said XRCC4 and said one or more components selected from the group consisting of DNA ligase IV and DNA-PK<sub>CS</sub>/Ku being indicative that said test compound inhibits binding between XRCC4 and DNA ligase IV, or XRCC4 and DNA-PK<sub>CS</sub>/Ku or XRCC4, DNA ligase IV and DNA-PK<sub>CS</sub>/Ku.

2. (amended) An assay method for a compound which inhibits binding between XRCC4 and DNA ligase IV or XRCC4 and DNA-PK<sub>CS</sub>/Ku, or XRCC4, DNA ligase IV and DNA-PK<sub>CS</sub>/Ku, the method comprising the steps of:

(i) bringing into contact a test compound and a polypeptide selected from the group consisting of XRCC4, DNA ligase IV and DNA-PK<sub>CS</sub>/Ku;

(ii) determining binding between said polypeptide and said test compound,

binding between said polypeptide and said test compound being indicative that said test compound inhibits binding between XRCC4 and DNA ligase IV or XRCC4 and DNA-PK<sub>CS</sub>/Ku or XRCC4, DNA ligase IV and DNA-PK<sub>CS</sub>/Ku.

3. (amended) An assay method for a compound which inhibits DNA ligase IV activity, the method including the steps of:

(i) bringing into contact DNA ligase IV and a test compound; and

(ii) determining DNA ligase activity in the presence and the absence of test compound,

a decrease in the activity in the presence relative to the absence of test compound being indicative that said test compound inhibits the activity of DNA ligase IV

Cancel claim 5 without prejudice.

6. (amended) An assay method comprising

(i) bringing into contact a test compound, DNA-PK<sub>CS</sub>/Ku and XRCC4; and

(ii) determining phosphorylation of said XRCC4 in the presence and absence of test compound;

a decrease in phosphorylation in the presence relative to the absence of test compound being indicative that said test compound inhibits the phosphorylation of XRCC4 by DNA-PK<sub>CS</sub>/Ku.

19. (amended) A method comprising obtaining a compound which inhibits the binding between XRCC4 and DNA ligase IV, or XRCC4 and DNA-PK<sub>cs</sub>/Ku, or XRCC4 and DNA ligase IV and DNA-PK<sub>cs</sub>/Ku, employing a method according to claim 1 or claim 2; and, formulating said compound into a composition which comprises a pharmaceutically acceptable excipient.

22. (amended) A method comprising obtaining a compound which inhibits DNA ligase IV activity employing a method according to claim 3 or claim 4 and formulating said compound into a composition which comprises a pharmaceutically acceptable excipient.

25. (amended) A method comprising obtaining a compound which inhibits DNA-PK<sub>cs</sub>/Ku phosphorylation of XRCC4 employing a method according to claim 6 and formulating said compound into a composition which comprises a pharmaceutically acceptable excipient.

#### REMARKS

Claims 1-4 and 6-28 are pending after entry of the amendments set forth herein, claims 1-4, 6, 19, 22 and 25 are under consideration.

Claims 1-3, 6, 19, 22 and 25 have been amended.

Please replace the claims with the clean version provided above.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Applicants respectfully request reconsideration of the application in view of the amendments and remarks made herein.

No new matter has been added.

#### 35 USC §112 FIRST PARAGRAPH

Claims 1-6, 19, 22 and 25 have been rejected under 35 USC §112 first paragraph as lacking enablement for any person skilled in the art to practice the invention commensurate in scope with the claims.

The term 'variant' and 'fragment' have been deleted from the pending claims, rendering moot the rejections based on these terms.

The present specification describes for the first time the existence of a complex